Wearables at Work: Preferences from an Employee's Perspective

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Introduction

- **Health promotion** effective to **decrease** absentieesm.
- **Self-tracking** via wearables **promising** approach: a first step towards **self-management**.
- **Wishes and needs** from employees unknown → **Important to inform future design** and improve usage of wearables in future interventions.

Objective: To obtain a preliminary impression of the needs on the use of wearable technology for workplace health promotion

Methods

Employees from the University of Twente were invited to **try a wearable** during lunch walks around the campus. **After the walk**, 76 employees with a mean age of 40 years (SD ±11.7) **filled in a survey** concerning their needs. **Analysis** were of **descriptive** nature.

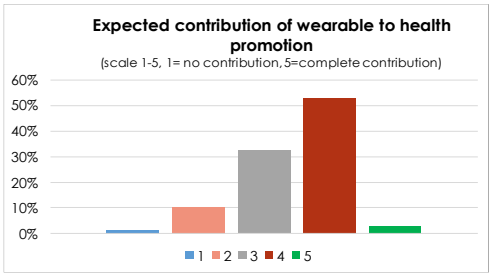
Misfit Shine wearables.
Source: Jellien Tigelaar (UT News)

Results

Positive aspects	Negative aspects
Wearables in general	
• **Insights** in own lifestyle pattern • **Pleasant design** of the Misfit Shine	• **Poor visualisation** of the data • **Unpleasant** to wear • Need for **observing more** than just steps
Wearables at work	
• **Improve** the **health** of employees • **Awareness** about health behaviour at work • Increase **fellowship** by supporting each other • **Engagement** of employer	• **Privacy issues** due to collection of personal data • Feeling of **being check-up on** (by employer) • An **extra task** for the employee • **Obligation** of use

Needs wearable use	%
Preferred method for monitoring	
A smartphone application	33
Sensors in smartphone	40
Wearable for continuous monitoring	37
Wearable for interval monitoring	15
Other	7
Obstructions daily monitoring	
Keeping track of additional data	53
Uncomfortable	34
Unattractive design	23
Continuous wearing	51
Open to long-term wearable use	59
Usage of private smartphone	64

Access to self-tracking data	No access to self-tracking data
• Only employee	• Employers and supervisors
• Physicians other health care professionals	
• Researchers	
• Others but only when access is provided by employee	



Discussion

Most employees see potential: obtain insights into lifestyle pattern

Recommendations
- **Diminish the burden of wearing**: use smartphone sensors for self-tracking [1,2] or fit sensors into everyday jewelry/clothing
- **Visualization** should be appealing [1] and understandable [2]
- Employee is manager of own data to reduce **privacy issues**

Results will be used in further research into the developement of a workplace stress management intervention combining self-tracking and eCoaching (project "**Quantified Self @Work**").

Lunch Walks at the University of Twente,
Source: Jellien Tigelaar (UT News)

References

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2. Patel MS, Asch DA, Volpp KG. Wearable devices as facilitators, not drivers, of health behavior change. Jama. 2015;313(5):459-460. re

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